

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PHNL030381WO	<b>FOR FURTHER ACTION</b>	
	See item 4 below	
International application No. PCT/IB2004/050412	International filing date ( <i>day/month/year</i> ) 08 April 2004 (08.04.2004)	Priority date ( <i>day/month/year</i> ) 16 April 2003 (16.04.2003)
International Patent Classification (IPC) or national classification and IPC 7 G06F 5/06		
Applicant KONINKLIJKE PHILIPS ELECTRONICS N.V.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I Basis of the report
<input checked="" type="checkbox"/>	Box No. II Priority
<input type="checkbox"/>	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI Certain documents cited
<input type="checkbox"/>	Box No. VII Certain defects in the international application
<input type="checkbox"/>	Box No. VIII Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

Date of issuance of this report 21 October 2005 (21.10.2005)
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Form PCT/IB/373 (January 2004)

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

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## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

### FOR FURTHER ACTION

See paragraph 2 below

Applicant's or agent's file reference  
see form PCT/ISA/220

International application No.  
PCT/IB2004/050412

International filing date (day/month/year)  
08.04.2004

Priority date (day/month/year)  
16.04.2003

International Patent Classification (IPC) or both national classification and IPC  
G06F5/06

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for International preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/IB2004/050412

**Box No. I Basis of the opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - a sequence listing
    - table(s) related to the sequence listing
  - b. format of material:
    - in written format
    - in computer readable form
  - c. time of filing/furnishing:
    - contained in the international application as filed.
    - filed together with the international application in computer readable form.
    - furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2004/050412

**Box No. II Priority**

1.  The following document has not been furnished:

copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).  
 translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2.  This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-13
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-13
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

2. Citations and explanations

see separate sheet

**Re Item V.**

1 The following documents are referred to in this communication:

D1 : DE 195 11 774 A (SIEMENS AG) 2 October 1996 (1996-10-02)

D2 : RUTTEN M J ET AL: "Eclipse: heterogeneous multiprocessor architecture for flexible media processing" PARALLEL AND DISTRIBUTED PROCESSING SYMPOSIUM., PROCEEDINGS INTERNATIONAL, IPDPS 2002, ABSTRACTS AND CD-ROM FT. LAUDERDALE, FL, USA 15-19 APRIL 2002, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 15 April 2002 (2002-04-15), pages 130-137, XP010591169 ISBN: 0-7695-1573-8

**2 INDEPENDENT CLAIM 1**

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.

2.1.1 Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses (the references in parenthesis applying to this document), implicitly or explicitly, a data processing apparatus, comprising:

- a processing circuit to produce data and to concurrently consume data (column 1, line 3-10);
- a processing memory (implied);
- a circular FIFO (claim 1, line 1-2);
- interface to use an auxiliary buffer region selection for the data consuming process, for making a data grain ('grain' being understood simply as data unit, cf. application page 1, line 25) available to the consuming process (figure 2: SP2), the interface being arranged to:
  - copy the grain from the memory (SP1) to the auxiliary memory (column 2, line 5-9);

2.1.2 The subject-matter of independent claim 1 differs from the disclosure of D1 in that :

I. In claim 1 the grain size is selectable.

- ii. In claim 1 copying to, and reading from the auxiliary memory is done only when wrap around occurs.

However, these differences do not contribute to an inventive step, because:

- i. Having a selectable grain size is a standard design option, known for example from D2 as admitted by the applicant, in the application on page 1, line 25-27, and page 2, line 12-13. A skilled person would routinely apply the teachings of D1 to such a context.
- ii. The problem solved by this difference is avoiding unnecessary copying. A skilled person would readily recognise this problem, and solve in the way proposed by claim 1, that is: detect whether wrap around occurs, and if so: copy and read from the auxiliary memory and, if not, read from the main memory.

There is no unexpected effect that arises from a combination of these two differences.

**2.1.3** Claim 1 thus cannot be considered inventive (Article 33(3) PCT).

### **3 INDEPENDENT CLAIMS 8, 9, 12 AND 13**

Independent claims 8, 9, 12 and 13 relate to essentially the same subject matter as claim 1 and are not inventive either, for reasons similar to those set out in point 2 above.

### **4 DEPENDENT CLAIMS 2-7, 10, 11**

Dependent claims 2-7, 10, 11 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(3) PCT).

Specifically it is noted that having a selectable grain size for both the producing and consuming process, as in claim 4, is known from D2 as well (by applicant's admission, page 2, line 12-15).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.  
**PCT/IB2004/050412**

Regarding grain and buffer size selection as in claim 6, ie. to ensure that wrap around always occurs: it is not clear, either from the claim or the description, which technical problem would be solved by this. It only seems to cause further overhead, namely to select the right sizes. It is also noted that there is no embodiment disclosed in the application without the feature of testing for wrap around. The feature of claim 6, grain and buffer size selection, is therefore considered a non-inventive design option.